

Meeting the Fast Start Commitment

U.S. Climate Finance in Fiscal Year 2011



Botswana

Overview of Bilateral, Regional, Multilateral, and Global Programs



Overview of U.S. Fast Start Climate Financing in Fiscal Years 2010 & 2011

In December 2009, President Obama and leaders from around the world came together in Copenhagen at the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) to chart a new course in the global effort to tackle climate change. The resulting Copenhagen Accord reflected - for the first time in an international outcome - measurable, reportable and verifiable mitigation targets and actions by all major economies, and set out new institutions and approaches for adaptation, technology and finance.

The finance outcomes in Copenhagen included a collective commitment by developed countries to provide resources to developing countries approaching \$30 billion in the period 2010-2012. The elements that leaders endorsed in the Copenhagen Accord, including this “fast start” finance commitment, were carried forward in decisions of the 16th Conference of the Parties in Cancun in December 2010.

Fulfilling Our Commitment

Since Copenhagen, the United States has substantially increased its investments in international climate finance. U.S. fast start finance in Fiscal Year (FY) 2011 totaled \$3.1 billion, consisting of \$1.8 billion of Congressionally appropriated assistance and \$1.3 billion from development finance and export credit agencies. To date, the U.S. contribution to fast start finance from these sources totals \$5.1 billion, including a contribution of \$2.0 billion from FY 2010. Ultimately, the total U.S.

contribution to fast start financing will also include funding from FY 2012.

Consistent with President Obama’s Global Development Policy, we are using the full range of mechanisms – bilateral, multilateral, and private – to ensure that our climate finance is efficient, effective, and innovative; based on country-owned plans; and focused on achieving measurable results. We are focusing our bilateral efforts on those countries and regions where we have a comparative advantage and are coordinating closely with other donors. U.S. fast start finance is provided to developing countries through a variety of channels, including:

- **Congressionally appropriated climate finance:** grant-based assistance through the Global Climate Change Initiative – a whole-of-government effort to promote low emission, climate resilient economic growth around the world – and additional grant-based assistance that delivers significant climate co-benefits. This includes:
 - Bilateral, regional, and multi-regional programs, principally through the U.S. Agency for International Development (USAID) but also through the U.S. Department of State, Millennium Challenge Corporation (MCC), and other U.S. Government agencies administering such programs; and
 - Multilateral climate finance vehicles, including the Climate Investment Funds (CIFs), the Global Environment Facility (GEF), the Least Developed Countries

Fund (LDCF), and the Special Climate Change Fund (SCCF).

- **Development finance and export credit agencies:** the Overseas Private Investment Corporation (OPIC) and the Export-Import Bank of the United States (Ex-Im) use public money to mobilize much larger sums of private investment directed at mitigation through loans, loan guarantees and insurance for the deployment of clean energy technologies in developing countries.

Also, U.S. fast start finance falls under three pillars: adaptation, clean energy, and sustainable landscapes, the last of which focuses largely on helping countries to slow, halt, and reverse deforestation. Within each of these pillars, a clear set of criteria was developed to guide the scale and focus of investments.

For adaptation, U.S. foreign assistance prioritizes countries that are highly exposed to climate change impacts, and countries that are vulnerable to climate variability and change.

For clean energy, U.S. assistance focuses on countries and sectors offering significant emission reduction potential, as well as countries that offer the potential to demonstrate leadership in sustained, large-scale deployment of clean energy. We also are investing in regional energy programs to bolster regional energy grids to support clean energy development.

For activities to promote climate objectives with respect to land use and forests, U.S. support prioritizes mitigation potential; countries with the political will to implement large-scale efforts to reduce emissions from deforestation, forest degradation, and other land-use activities; and potential for performance-based approaches.

U.S. assistance and technical agencies are also supporting a cross-cutting objective – building national capacity for Low Emission Development Strategies (LEDS). This effort is currently developing a set of tools and methodologies to

support partner countries and governments in their efforts to think strategically about, plan for, and initiate implementation of economic growth with a reduced emissions trajectory.

Of the \$1.8 billion in FY 2011 Congressionally appropriated assistance, \$563 million is for adaptation, and \$1.28 billion is for mitigation, which includes \$329 million for sustainable landscapes or REDD+ related activities and \$946 million for clean energy. All resources provided by the development finance and export credit agencies support mitigation activities.

Bilateral Finance

Bilateral finance is a term that applies to grant-based U.S. assistance programmed directly through multi-regional, regional and bilateral programs rather than provided as contributions to multilateral funds or organizations. For FY 2011, \$1.5 billion of U.S. climate support is being provided through bilateral finance to developing countries, principally supported by USAID. This assistance is targeted to help the most vulnerable countries adapt to climate impacts and to partner with countries with significant opportunities to mitigate their emissions. Allocation decisions for each program are made by the administering U.S. federal agency.

Multilateral Finance

Multilateral channels also play an important role in U.S. climate assistance. Multilateral programs promote institutional structures governed jointly by developed and developing countries, which are needed for a coordinated, global response to climate change. Multilateral assistance leverages funding from other governments, development partners and the private sector, makes capital investment in infrastructure, provides a range of tailored financial products, and works across a wide range of countries. Similar to bilateral finance, multilateral finance is allocated for adaptation, clean energy, and sustainable landscapes activities in developing countries.

Examples of Bilateral Programs

- The United States is investing \$15.7 million in a biodiversity program in central Africa that is providing climate change benefits in seven countries of the Congo Basin. The program will work to slow the rate of tropical forest and biodiversity loss by increasing institutional capacity, improving governance, expanding scientific knowledge of natural resources, and creating economic alternatives for local communities.
- In Bangladesh, the United States is providing \$11 million in support of climate change adaptation and biodiversity conservation, and will expand its involvement with the conservation and better management of the Sundarbans—the largest mangrove forest in the world—aiming not only to mitigate the effects of natural disasters, but also to provide additional income for poor communities.
- In Indonesia, the United States is allocating approximately \$332 million to the proposed “Green Prosperity” Project, which is a 5-year project designed to promote environmentally sustainable, low carbon economic growth consistent with its development and climate change strategies. The centerpiece of the Project is a funding facility that will support investments in two areas: (i) expansion of renewable energy; and (ii) sustainable management and use of natural resources.
- The United States is providing \$4.6 million for the Africa Infrastructure Program (AIP) to provide clean energy capacity building assistance to governments in Southern Africa. The program will work with partner government agencies responsible for the development of policies, integrated resource plans, and energy sector reforms, and will result in the deployment of clean and renewable energy technologies and programs that reduce greenhouse gas emissions.
- In Guatemala, the United States is investing \$7.6 million in a broad adaptation and sustainable land use program that works to build resilience to climate change impacts and reduce greenhouse gas emissions from land use change. The program will include activities to reduce risks from natural disasters and other projected climate change impacts, conserve biodiversity, and improve natural resource management.
- In six countries in Central America, the United States is providing \$4 million to assist governments and nongovernmental organizations with building and harmonizing regional capacity for Reducing Emissions from Deforestation and Forest Degradation (REDD+) and, where possible, to build regional momentum by drawing lessons from Mexico’s successful experience with REDD+.
- In the Andean region of South America, the United States is investing \$2 million to support efforts to understand and manage glacial ice and water resources in the face of projected dramatic climate change impacts. Specific activities may include researching ice and water dynamics, supporting regional cooperation on glacier and related water management issues, and promoting awareness about the importance of modifying water resource management in response to climate change.
- In Mali, the United States is investing \$3 million to reduce communities’ vulnerability to climate change impacts and alleviate poverty in the process. In coordination with the Malian Department of Meteorology and other research institutions, the United States will improve the distribution of 10-day and seasonal forecasts and the generation of climate change impact data, while working with the agricultural community to integrate this information into decision-making processes.

In FY 2011, the United States delivered \$235 million to the CIFs, including:

- \$185 million to the Clean Technology Fund (CTF), which aims to catalyze sustained, long-term clean energy transformation in developing countries;
- \$30 million to the Forest Investment Program (FIP), which provides financing for investments in forest governance and institutional capacity development, as well as measures to reduce deforestation drivers outside the forest sector;
- \$10 million to the Pilot Program for Climate Resilience (PPCR), which helps highly vulnerable countries prepare for and respond to the unavoidable effects of climate change; and
- \$10 million to the Scaling-Up Renewable Energy Program in Low Income Countries (SREP), which helps the poorest countries to use renewable energy to expand energy access, stimulate economic growth, and reduce vulnerability to energy shocks.

In addition, in 2011 the United States committed:

- \$45 million to the GEF to support developing countries' efforts to develop and implement innovative programs in clean energy and REDD+.
- \$25 million to the LDCF and \$10 million to the SCCF, multilateral funds created under the UNFCCC that support financing to help developing countries adapt to the impacts of climate change.

Development Finance and Export Credit Agencies

U.S. development finance and export credit agencies play a critical role in using a core of public money to mobilize much larger sums of private investment directed at mitigation in

developing countries. In FY 2011, OPIC and Ex-Im provided \$1.3 billion in investments, direct loans, loan guarantees, and insurance to support the deployment of clean energy technologies.

OPIC, in particular, has implemented a substantial increase in its clean energy financing activities from FY 2010 to FY 2011. As the U.S. Government's development finance agency, OPIC contributes to U.S. development and foreign policy objectives in a way that catalyzes private sector investment.

Most Ex-Im and OPIC programs are transaction-based, meaning that financing responds to market demand for their products rather than being pre-allocated to certain countries or activities. For purposes of U.S. fast start finance, only the value of OPIC and Ex-Im commitments to these transactions is counted, not the additional private capital leveraged by these commitments. But it is worth noting that the \$1.3 billion of OPIC FY 2011 financing leveraged at least an additional \$2.3 billion of private investment.

Looking Ahead

Public finance will continue to play a critical role beyond the fast start period, particularly for adaptation. For this reason, the United States remains committed to providing public climate finance contributions in the years beyond 2012.

However, public finance alone will not be sufficient to address climate change. Our aim is to take a finite but growing core of public money and combine it with smart policies to substantially increase private flows into climate friendly investments in both mitigation, and where possible, adaptation. These resources will be especially important as we, together with our developed country partners, work towards our collective goal to mobilize \$100 billion per year by 2020, in the context of meaningful mitigation actions and transparency on implementation. The United States has already started to lay

Examples of Multilateral Programs

- The U.S. contributed \$185 million to the Clean Technology Fund (CTF) in FY 2011, in addition to the \$300 million we contributed in FY 2010. Among the investments approved by the CTF was for Egypt to continue to partner with the African Development Bank (AfDB), the International Finance Corporation (IFC), and the International Bank for Reconstruction and Development (IBRD) to implement a Clean Technology Fund (CTF) investment plan that uses \$300 million in concessional CTF financing to mobilize more than \$1.9 billion in total investments in wind power and sustainable urban transportation.
- The U.S. contributed \$10 million to the Scaling-Up Renewable Energy Program (SREP) in FY 2011. Among the investments approved by SREP was a \$30 million pilot program, in partnership with the Asian Development Bank (ADB) and the World Bank, for the Maldives to develop a program of investments that will help scale-up the use of renewable energy to expand energy access, stimulate economic growth, and reduce vulnerability to energy shocks.
- The U.S. contributed \$10 million to the Pilot Program for Climate Resilience (PPCR) in FY 2011. In partnership with the African Development Bank (AfDB) and the World Bank, Niger has developed a PPCR investment strategy that uses \$50 million in grant funding and \$60 million in concessional loans for projects in areas including water resource management, weather and climate forecasting systems, and social and economic infrastructure for high-risk climatic zones.

the foundation for private sector investment in the post fast-start period by encouraging development finance and export credit agencies, such as OPIC and Ex-Im, to invest in clean energy technologies, and by leveraging strong private sector investments across all three pillars through our multilateral programs. We will continue to work aggressively to find solutions that include both public and private finance components.

U.S. Fast Start Finance Country Fact Sheets

In addition to this overview, the United States has prepared individual fact sheets for countries receiving U.S. fast start finance for FY 2011. Each country fact sheet describes projects and programs funded in whole or in part by the U.S. government, including:

- U.S. Government programs focused exclusively in that country (e.g., bilateral

assistance programs in a specific country);

- U.S. Government centrally- or regionally-based programs that benefit that country among others (e.g., activities undertaken by the USAID Regional Development Mission for Asia in a group of Asian countries.)
- Projects financed by OPIC and the Ex-Im Bank, and;
- Initiatives funded by multilateral climate funds to which the United States is a donor (e.g., programs undertaken by the CTF).

In addition, more than \$400 million of Congressionally appropriated assistance is delivered through global programs. These programs' benefits are spread across many nations, and cannot be narrowly attributed to any single nation.

To ensure accurate and comprehensive reporting of this information, all U.S. Government agencies involved in fast start activities were

Examples of Global Programs

- The United States is providing \$10.2 million for Enhancing Capacity for Low Emission Development Strategies (EC-LEDS), a whole-of-government program to support developing countries' efforts to pursue long-term, transformative development and accelerate sustainable, climate-resilient economic growth while slowing the growth of greenhouse gas emissions. The initiative will build LEDS-related capacities in up to 20 partner developing countries, provide targeted technical assistance – for example with greenhouse gas inventories, economic and sectoral modeling and analysis, stakeholder engagement, and forest and clean energy interventions – and build a shared global knowledge base on LEDS.
- The United States is investing \$7 million in the SERVIR Regional Visualization and Monitoring System to improve capacity of government counterparts and key non-governmental stakeholders to make use of geospatial information and tools for decision-making related to climate change adaptation, land-based sequestration, and climate resilient agriculture, natural resources management, and health. SERVIR integrates satellite data, ground-based observations, and forecasts to provide information about environmental changes and to improve response to natural disasters.

asked to provide information on climate-related international programs or activities supported with FY 2011 funding. They were specifically asked not to include activities supported with FY 2010 funding and therefore included in last year's fast start finance report.

Agencies also were given specific guidelines on what constitutes climate finance and asked to indicate whether activities supported adaptation, clean energy, or sustainable landscapes. To avoid double-counting, agencies were prohibited from attributing the same funding to multiple categories.

This overview and the country-specific fact sheets together represent a snapshot of activities planned and implemented at the time of writing. In many cases, plans and activities will be further refined in consultation with partners, and any individual activity may be subject to change as circumstances evolve. While aiming to cover as many initiatives as possible, the fact sheets do not capture all activities, including all activities of U.S. Government agencies or all contributions to multilateral programs that focus in part on climate change.

Furthermore, this update only addresses U.S. fast start finance for FY 2011. In many instances, the FY 2011 finance reported for certain projects is only a portion of the ongoing funding associated with those projects, and projects undertaken with funding from any one fiscal year are typically carried out over multiple years. For example, activities undertaken with FY 2010 funds are, in most cases, ongoing. For information on FY 2010 activities, please see the FY 2010 fast start finance report, available at: www.state.gov/faststartfinance. Bilateral assistance is disbursed by each implementing U.S. Government agency according to its own financial procedures; these vary across agencies and accounts.

The FY 2011 data will continue to evolve as some projects are still being developed. As necessary, we will provide updated information. Similarly, after further review and consultation with partners, we have revised our FY 2010 contribution level from a total of \$1.7 billion to a total of \$2.0 billion, consisting of \$1.6 billion of Congressionally appropriated assistance and

Examples of OPIC and Ex-Im Investments

- In Kenya, OPIC committed \$310 million for financing a project that will double the generating capacity of a geothermal power plant, adding new electricity to the country's grid through the use of environmentally friendly American technology, and creating both American and Kenyan jobs in the process. Geothermal power production emits negligible greenhouse gases and other air pollutants.
- In India, Ex-Im Bank authorized a loan of \$84.3 million to finance solar photovoltaic modules and related equipment for the Dahanu Solar project located in the state of Rajasthan.
- In Georgia, OPIC is lending \$58 million for the development, construction and operation of a 46.4 MW hydropower generation facility located on the Mtkvari River, increasing the supply of renewable electricity in the region.
- In the Kingdom of Thailand, OPIC is investing \$250 million in the development, construction and initial operations of a portfolio of approximately 50 solar photovoltaic power projects, which will increase the capacity of Thailand's national grid.

\$400 million from development finance and export credit agencies. This increment from last year's account includes additional financing from agencies like the U.S. Trade and Development Agency, as well as a newly signed Millennium Challenge Corporation compact with the Government of Malawi, which includes \$139 million of FY 2010 funds. The previous estimate of the FY 2010 U.S. contribution consisted of \$1.3 billion of Congressionally appropriated assistance and \$400 million from development finance and export credit agencies.

The fact sheets also include programs with significant climate co-benefits (e.g., relevant biodiversity and food security activities). Activities with climate co-benefits applicable to a certain country are included in many cases. However, this update does not capture the totality of co-benefits provided through U.S. support. For example, in 2010, the U.S. invested a total of \$900 million in atmospheric, oceanic, and terrestrial systems that provide global-scale climate observations and monitoring (2011 totals have not yet been finalized). In collaboration with other countries, the United States makes this data available globally, including for

countries to help plan for adaptation. This spending on global-scale climate observations and monitoring is not counted as fast start finance or included in the fact sheets for FY 2010 and FY 2011.

For multilateral programs and projects, fact sheets differentiate between the total amount provided by the multilateral fund and the U.S. contribution to that fund in FY 2011. Only the U.S. FY 2011 contribution to the fund is included in the total U.S. FY 2011 fast start finance figures. In addition, this update does not discuss activities with climate co-benefits that fall under the regular programs of multilateral institutions, such as the World Bank, regional development banks, or United Nations agencies, such as the United Nations Development Programme. However, as the United States is the largest contributor to many of these institutions, the additional climate benefits from such programs attributable to U.S. support are substantial.

The United States will continue to update information about its climate finance budgets and actual allocations through FY 2012.

For More Information

- U.S. fast start finance website: www.state.gov/faststartfinance.
- Questions about U.S. fast start finance can be sent to faststartfinance@state.gov.
- Questions about USAID climate assistance programs in specific countries should be directed to the USAID mission for that country; contact information for missions can be found at: [http:// www.usaid.gov/locations/missiondirectory.html](http://www.usaid.gov/locations/missiondirectory.html).
- For more information about OPIC programs, go to <http://opic.gov/doing-business-us>.
- For more information about Ex-Im programs, go to <http://www.exim.gov>.
- For more information on the CIFs, go to <http://www.climateinvestmentfunds.org>.
- For more information on the GEF, LDCF and SCCF, go to <http://www.thegef.org>.



Botswana Fact Sheet

Note: Amounts and activity descriptions are for Fiscal Year 2011 funds only. Activities undertaken with Fiscal Year 2010 funds are in most cases ongoing. For information on 2010 activities, please see the 2010 Fast Start Finance report, available at www.state.gov/faststartfinance. The figures provided here do not necessarily reflect the sum total of climate-related financing provided by the U.S. Government to this country; please see the Executive Summary for information on our methodology. Funding amounts above \$1 million are rounded to the nearest hundred thousand.

Support Through U.S. Government Programs

Bilateral Programs.....**Not Applicable (N/A)**

Regional Programs Benefiting a Number of Countries, Including Botswana

- \$4.6 million for structuring and financing clean energy projects through the Africa Infrastructure Program
- \$2.5 million to test innovative practices for improved water allocation, conservation and demand management in the Limpopo River Basin
- \$1 million for renewable energy support through the USAID Southern Africa Trade Hub
- \$500,000 to increase understanding of potential climate impacts and build the capacity of stakeholders in Southern Africa to respond soundly

Development/Export Finance..... **N/A**

Multilateral Funding Directly Benefiting Botswana, to Which the U.S. Contributes a Portion of this funding.

N/A

Descriptions of 2011 U.S.-Supported Program Activities

REGIONAL U.S. GOVERNMENT PROGRAMS BENEFITING A NUMBER OF COUNTRIES INCLUDING BOTSWANA

- USAID is providing \$4.6 million for the Africa Infrastructure Program (AIP) to provide clean energy capacity building assistance to governments in Southern Africa. The program will work with partner government agencies responsible for the development of policies, integrated resource plans, and energy sector reforms and will result in the deployment of clean and renewable energy technologies and programs that reduce greenhouse gas (GHG) emissions. AIP activities will improve the clean energy enabling environment to help private independent power producers develop clean and renewable projects that replace less efficient, carbon-intensive thermal energy generation, ultimately helping countries to accelerate their transition to climate resilient, low emission economic growth and development.

- In the Limpopo River Basin, covering parts of Botswana, Mozambique, South Africa, and Zimbabwe, the U.S. Agency for International Development (USAID) is providing \$2.5 million to promote the use of evidence-based strategies for improved water management. Working through the Limpopo Watercourse Commission, water basin management authorities, private businesses and other institutions, and using the best available climate science and management information, USAID will promote climate-friendly policies, build skills, and test innovative practices for improved water allocation, conservation and demand management.
- USAID will invest \$1 million in the Southern Africa Trade Hub to promote the development of renewable energy planning and generation through a combination of policy, legal, and tariff reforms. The investment will support training and capacity building for the Southern African Development Community (SADC) Infrastructure and Service Directorate, the Regional Electricity Regulators Association of Southern Africa, the Southern Africa Power Pool, and the Africa Forum of Utility Regulators. This assistance will enable SADC Member States to improve the regional planning and enabling environment for sustainable clean energy sources, and support a transition to climate resilient, low emissions economic growth and development.
- USAID is investing \$500,000 to increase understanding of potential climate impacts and build the capacity of stakeholders in Southern Africa—including the Okavango River Basin Commission, national and local governments, and community groups—to respond with socially, environmentally and economically sound methods. The project will support information sharing, awareness-raising and implementation of adaptation strategies in areas in Angola, Namibia, and Botswana where the most vulnerable poor depend on natural resources for their livelihoods. In addition to technical training and the development of decision-making tools, the project will support applied research, data collection, and improved communication among partners on the anticipated impacts of climate change in the region.



Global Programs

Note: The programs listed below operate globally or in multiple regions. Their benefits are spread across many nations; the benefits cannot be narrowly attributed to any single nation or region. Please see the Executive Summary for more information on these programs and our methodology. Funding amounts above \$1 million are rounded to the nearest hundred thousand.

U.S. Government Programs

Global or Multi-Regional Programs.....\$426,300,000

- \$100 million for increased resilience to natural disasters and complex emergencies
- \$89 million for water security and climate resilience
- \$35.5 million for the Montreal Protocol fund
- \$25 million for the Least Developed Countries Fund (LDCF)
- \$20 million for the Climate Change, Agriculture, and Food Security research program
- \$18 million for the Famine Early Warning System Network (FEWSNet)
- \$10.3 million for the Global Methane Initiative (GMI)
- \$10.2 million for Enhancing Capacity for Low Emission Development Strategies (EC-LEDS)
- \$10.2 million for global adaptation research in partnership with Columbia University's International Research Institute (IRI)
- \$10 million for the Special Climate Change Fund (SCCF)
- \$10 million for global REDD+ programs, including the Forest Carbon Partnership Facility
- \$8 million for the Energy Grand Challenge
- \$8 million for climate change-related public-private partnerships
- \$7.5 million for the Climate Change Resilient Development program
- \$7 million for the Renewables, Efficiency, and Deployment Initiative (Climate REDi) program
- \$7 million for the SERVIR Regional Visualization and Monitoring System
- \$6 million for climate change integration pilot projects
- \$5 million for pilot projects to evaluate adaptation efforts and hydro-meteorological risk reduction activities
- \$4.8 million for SilvaCarbon
- \$3.5 million for food security and crisis mitigation

- \$3 million for field applications of clean energy
- \$3 million for Adapting Livestock Systems to Climate Change collaborative research program
- \$2.6 million for Forest Carbon, Markets and Communities Program
- \$2.2 million for the monitoring and evaluation of USAID climate change programs
- \$2 million for a Development Credit Authority loan guarantee supporting climate change projects
- \$1.8 million for the African Agricultural Technology Foundation
- \$1.4 million for the Rural Resilience Initiative
- \$1.4 million to establish policy and investment preconditions for clean energy programs
- \$1.2 million for Sustainable Conservation Approaches in Priority Ecosystems
- \$1.2 million for a U.S. Forest Service land conservation program
- \$1 million for analysis and investment for low emission growth
- \$1 million for the Private Financing Advisory Network (PFAN)
- \$1 million for the Carbon Reporting Initiative
- 19 other climate-related programs totaling \$8.5 million

Descriptions of Global or Multi-Regional U.S. Government Programs

- The United States Agency for International Development (USAID) is investing more than \$100 million in agricultural and food security programs to strengthen capacities to respond to disasters and increase communities' resilience to climate fluctuations. These investments include programs to strategically reduce agricultural hazards worldwide by supporting livestock, fisheries, pest control, seed systems, agricultural input and livelihood diversification programs that can help ameliorate future adverse impacts from climate variability and change.
- USAID is investing more than \$89 million in water security programs globally to strengthen local capacity and resilience to disasters, such as droughts, which are projected to become more unpredictable due to climate change impacts. These activities are working to improve water, sanitation, and hygiene interventions; develop better irrigation and water harvesting technologies; enhance natural resources management; and strengthen institutional capacity at multiple levels for water resources management, ultimately helping to build climate resiliency.
- The U.S. Department of State and the U.S. Environmental Protection Agency (EPA) provided an additional \$35.5 million in funding for the Montreal Protocol Fund in 2011. The Fund supports a variety of capacity-building and institutional investment projects and programs related to the phase-out of ozone-depleting substances, including a focus on completing the phase-out of chlorofluorocarbons (CFCs) and approving projects and programs in developing countries for the phase-out of hydrochlorofluorocarbons (HCFCs) over the next two decades. Both CFCs and HCFCs are potent greenhouse gases (GHGs) and many of the projects also include the use of climate friendly technologies.

- The Department of State is making a \$25 million contribution to the Least Developed Countries Fund (LDCF), a multilateral fund created under the United Nations Framework Convention on Climate Change. The LDCF focuses specifically on assisting 48 least developed countries in developing National Adaptation Programs of Action that identify urgent and immediate adaptation needs and implementing programs to address those needs, with a view toward increasing the climate resilience of key development sectors, such as agriculture, water, and integrated coastal zone management.
- USAID is investing \$20 million through the Consultative Group on International Agricultural Research's (CGIAR's) Research Program on Climate Change, Agriculture and Food Security. The program will seek ways to overcome the threats to agriculture and food security in a changing climate and explore new ways of helping vulnerable rural communities adjust to global changes in climate.
- USAID is investing \$18 million in the Famine Early Warning System Network (FEWSNet) to support climate change adaptation planning by identifying potential threats to food security, using meteorological data for monthly food security updates, developing regular food security outlooks and alerts, and promoting response planning efforts. FEWSNet will identify national priority zones and populations for adaptation activities in Africa and conduct climate change assessments to better understand variability in seasonal climate patterns. Enhanced monitoring and assessment activities will provide earlier information on challenges to the food and water security of communities that are most vulnerable to climate change.
- The U.S. State Department and the U.S. EPA are providing a combined \$10.3 million in FY 2011 to the Global Methane Initiative (GMI, formerly known as Methane to Markets). The GMI advances the cost-effective, near-term recovery and use as a clean energy source of methane from such sources as coal mines, leaking oil and gas infrastructure, landfills, agricultural waste and municipal wastewater treatment facilities. The Initiative builds international cooperation for methane mitigation among 40 partner countries, including all top 10 methane-emitting nations. Through the Initiative, the U.S. supports more than 300 projects that, when fully implemented, will reduce 60 million metric tons of carbon dioxide-equivalent per year. The Global Methane Initiative is engaged in nearly 600 projects and activities around the world that have reduced cumulative methane emissions by 128.3 millions of tons of carbon dioxide-equivalent (MMTCO₂E) since 2005. Activities supported include pre-feasibility and feasibility studies at potential project sites, capacity-building through technology transfer and training, development of tools and resources, and the support of the Initiative's secretariat (Administrative Support Group) to organize and lead activities across the globe.
- USAID is providing \$10.2 million for the whole-of-government Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program to support developing countries' efforts to pursue long-term, transformative development and accelerate sustainable, climate-resilient economic growth while slowing the growth of greenhouse gas emissions. The initiative will build LEDS-related capacities in up to 20 partner developing countries, provide targeted technical assistance – for example with greenhouse gas inventories, economic and sectoral modeling and analysis, stakeholder engagement, and forest and clean energy interventions – and build a shared global knowledge base on LEDS. The program will draw technical expertise from several government agencies, including the U.S. Forest Service, U.S. EPA, and the U.S. Department of Energy and its national labs. The country-driven program will be tailored to support each country's unique capacity, technical, analytical, and policy needs. USAID will make additional investments in the program at the country level (see country pages for details).
- The U.S. government provides \$10.2 million to the International Research Institute for Climate and

Society (IRI) at Columbia University through investments from the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) (\$9 million) and USAID (\$1.2 million). IRI supports work in Africa, Asia and Latin America to "use a science-based approach to enhance society's capability to understand, anticipate, and manage the impacts of climate in order to improve human welfare and the environment". This includes conducting research, monitoring climate conditions, supporting data development and sharing, analyzing historical conditions, providing training and technical guidance, and developing regional and global climate services including forecasts. As part of this effort, IRI leverages and produces complementary data, products, and services from NOAA and other federal agencies to make them more useful and available to decision-makers in developing countries in an easily accessible format that meets their needs and helps them achieve development goals in their countries.

- The Department of State is making a \$10 million contribution to the adaptation window of the Special Climate Change Fund (SCCF), a multilateral fund created under the UNFCCC that, like the LDCF, is supporting programs that increase the climate resilience of key development sectors. The SCCF is open to all vulnerable developing countries, including Small Island Developing States and glacier-dependent countries that are not Least Developed Countries.
- \$10 million from the Department of State will support global REDD+ programs. A portion of this funding will support the Forest Carbon Partnership Facility, a multilateral climate fund that helps developing countries measure their forest carbon stocks and design deforestation emissions reductions strategies. The funding may also support other global REDD+ initiatives and partnerships.
- USAID is providing \$8 million for the Energy Grand Challenge for Development, a new effort to spur innovative projects that reduce the cost of agricultural commodities by increasing access to renewable energy and energy efficiency technologies and practices in agricultural pumping, processing, and storage. The grand challenge will focus on supporting technology innovation, technology pilot projects, technology commercialization, market development, and technical leadership.
- USAID will dedicate \$8 million to support a series of climate change-related public-private partnerships with the goal of leveraging significant additional private sector resources to address climate change in developing countries. Potential clean energy and sustainable land use partnership topics include renewable electricity, clean fuels, energy efficiency, sustainable forestry, and sustainable supply chain. Additional adaptation-related partnerships might address water utilities, disaster or risk insurance, tourism, and agricultural production.
- USAID is investing \$7.5 million in the Climate Change Resilient Development program to develop new tools and platforms for communicating weather and climate information, and new approaches for assessing vulnerability and risk. USAID also will identify approaches to climate-resilient development, and publish new guidance and toolkits to support the design of climate-resilient projects. The program is providing training to developing country and USAID partners, and supports pilot projects to test and demonstrate the efficacy of the tools and approaches. As part of this effort, USAID will also support the Global Adaptation Partnership, organizing four workshops on key challenges to climate change adaptation and building the capacity of more than 200 practitioners.
- The Department of State is spending \$7 million in 2011 funds to continue to support the Renewables, Efficiency, and Deployment Initiative (Climate REDI), a 5-year, \$35 million initiative announced by U.S. Secretary of Energy Steven Chu in 2009 at the United Nations climate summit in Copenhagen.

Climate REDI, implemented by the U.S. Department of Energy, is a global program aimed at expanding the use of energy efficiency appliance standards and labeling; developing standards and markets for affordable solar-powered LED lanterns; and sharing best practices and strategies for market-enabling clean energy policies.

- Through the SERVIR Regional Visualization and Monitoring System, USAID is investing \$7 million to improve capacity of government counterparts and key non-governmental stakeholders to make use of geospatial information and tools for decision-making related to climate change adaptation, land-based sequestration, and climate resilient agriculture, natural resources management, and health. Activities will lead to near global coverage building on nodes in Central America, Africa, and Asia. The program will provide support to developing country institutions to engage with the geospatial network and increase the use of geospatial climate tools and information. A significant piece of the total SERVIR investment will be to build a meso-scale ecosystem map of the African continent as a base-map for SERVIR-Africa.
- USAID is investing \$6 million in climate change integration pilot projects. With these projects, USAID will a) test new approaches to integrating climate considerations into full development assistance portfolios in partner countries addressing specific mitigation or adaptation development challenges; and b) integrate climate change into other key development initiatives and high priority investments, such as food security. These pilot projects will serve as a catalyst for making USAID's development assistance "climate smart," discovering and supporting the most effective ways to support low emission, climate resilient economic growth in developing countries.
- USAID is investing \$5 million in pilot projects in Asia and the horn of Africa to evaluate adaptation efforts and hydro-meteorological risk reduction activities that integrate expertise across several development sectors. The projects will include incorporating democracy and governance expertise into the design of transboundary flood disaster risk reduction, applying conflict-sensitive climate information to enhance the provisioning of humanitarian assistance, and incorporating democracy and governance considerations into addressing field-level climate change issues.
- USAID is investing \$4.8 million in the multi-USG agency SilvaCarbon program to enhance capacity worldwide for monitoring and managing forest and terrestrial carbon. SilvaCarbon will draw on the expertise of the U.S. scientific and technical community including experts from government, academia, non-governmental organizations (NGOs), and industry. Partnering with developing countries and other stakeholders, SilvaCarbon will enhance worldwide capacity by identifying, testing, and disseminating good practices and cost-effective, accurate technologies for monitoring and managing forest and terrestrial carbon. The program will improve information on measuring below-ground GHG emissions in peatlands, mangroves, and other wetlands; provide data for modeling and analysis of the drivers of deforestation and barriers to increased sequestration; and research the impacts of farmer managed natural regeneration of trees in Africa. SilvaCarbon is part of the U.S. contribution to the Forest Carbon Tracking task of the intergovernmental Group on Earth Observations (GEO). USAID will make additional investments that complement the SilvaCarbon program at the country level.
- USAID is providing \$3.5 million for food security and crisis mitigation activities with a focus on identifying areas where agricultural research can contribute to development efforts. The project will work to develop climate-adaptive technologies and promote the adoption of adaptive measures, such as new seeds and agriculture management systems that lessen climate change risks to people, places, and livelihoods. One area of focus will be technologies that can mitigate the effects of disasters on crops,

such as developing drought-resistant seed varieties.

- USAID is investing \$3 million to support field applications of clean energy. A set of coordinated activities will help developing countries build human, institutional, legal, and regulatory capacity for critical energy sector reforms; develop credible and robust systems for monitoring, reporting and verification of GHG emissions; and develop indexing tools to help countries address local barriers to the development and transfer of clean energy. USAID's initial investment is seed funding to leverage future investment for clean energy projects that build local capacity for decentralized renewable energy and hybrid renewable energy-hydrocarbon systems; promote and expand the supply of renewable energy; scale up markets for small-scale distributed energy systems; and support energy efficiency services in the utility, industrial, water, transportation, public and commercial sectors through financing and market transformation.
- USAID is investing \$3 million in the Adapting Livestock Systems to Climate Change collaborative research program. Through agricultural research-related interventions, the program aims to reduce climate change vulnerability and increase adaptive capacity in regions where agricultural systems are experiencing climate change impacts and available resources are shrinking. The project builds local human and institutional capacity related to livestock productivity, veterinary and human health, and environmental sciences to help communities to adapt to climate change.
- USAID is investing \$2.6 million in the Forest Carbon, Markets and Communities Program, which provides technical support to developing country governments and local NGOs to improve the management and conservation of natural forests and to promote reforestation and agricultural practices that increase tree cover. These efforts conserve soil and water, provide habitat for wildlife, and store and sequester carbon, reducing net greenhouse gas emissions that contribute to climate change.
- USAID is investing \$2.2 million to evaluate the impact of its climate change programs. The effort will work to improve measurement indicators, develop an evaluation agenda for USAID's climate change investments, and share lessons learned to improve the design and implementation of future programs.
- USAID is providing a \$2 million Development Credit Authority Loan Guarantee to leverage private finance for climate change projects in underserved countries and sectors. This guarantee will cover up to 50 percent of the risk financial institutions bear in lending to projects that support USAID development assistance objectives, enabling a larger financial impact to projects than public-sector grants alone.
- Through the African Agricultural Technology Foundation, USAID is investing nearly \$1.8 million to reduce the vulnerability of people, places, and livelihoods to negative impacts of climate change by developing adaptive technologies such as drought tolerant seed varieties and integrating effective adaptive strategies in host countries.
- USAID is investing \$1.4 million in an innovative project with the World Food Program to develop effective ways to promote both climate change adaptation and food security, through comprehensive risk management solutions for vulnerable rural populations. An approach will be developed and tested that incorporates four primary tools: insurance, savings, credit, and risk reduction. The program will be piloted in Senegal, with an aim to determine and demonstrate the conditions and requirements for effectively scaling up risk management solutions for vulnerable communities. Lessons learned from the effort will be incorporated into guidance materials and global learning events to inform adaptation-related policies and development assistance in countries throughout the globe.

- USAID is investing \$1.4 million to establish critical policy, regulatory and investment preconditions for sustainable clean energy programs. As part of this effort, USAID supports executive exchanges between U.S. and developing country utility managers to share lessons learned in renewable energy deployment, energy efficiency, demand side management and advanced metering technologies. USAID establishes policy and regulatory frameworks that increase transparency, efficiency, and private sector participation in developing countries' energy sectors. USAID supports measures to improve the performance of utilities, enhancing sustainability and reducing dependence on government subsidies. USAID also supports peer-to-peer exchanges between infrastructure regulators in developing countries and their U.S. counterparts. USAID works to help countries overcome barriers to the scale up of small scale renewable energy systems through work with microfinance institutions, energy service providers, and other private sector partners, promoting innovative renewable energy financing.
- USAID is investing more than \$1.2 million as part of the larger Sustainable Conservation Approaches in Priority Ecosystems (SCAPES) program to reduce deforestation and build resilience to climate change in critical landscapes in Africa, South America, and the Himalayas. SCAPES works to strengthen the tenure and management capacity of community and government organizations that manage forests and help local forest communities and migratory wildlife adapt to climate change by improving ecosystem function and sustainable land use. The SCAPES program partners with the Africa Wildlife Foundation in Tanzania and Zambia, the Wildlife Conservation Society in the Madidi-Tambopata landscape in Bolivia and Peru, and the World Wildlife Fund in the Eastern Himalayan, Eastern Cordillera Real, and Greater Ruvuma landscapes.
- Through its Forest Conservation and Management program, the U.S. Forest Service is providing \$1.2 million of technical assistance and training to partners in Latin America, Africa and Asia to improve forest management, combat illegal logging, promote community participation in forest conservation, and protect sensitive wildlife habitat. These activities produce climate change benefits by helping to conserve forested landscapes and avoid deforestation, thus preserving those forests' ability to sequester carbon.
- A new USAID program, Analysis and Investment for Low Emission Growth, is providing \$1 million to promote best practices and provide technical leadership for economic analysis of climate change mitigation policies. The program will support developing country partners and other stakeholders in both clean energy and sustainable landscapes sectors on a global scale.
- USAID will contribute \$1 million to the Private Financing Advisory Network (PFAN) at the global level to support small scale clean energy and adaptation technology development. PFAN contributes directly to low emission development and economic growth by building the capacity of climate change entrepreneurs to develop viable projects, then linking them to private financiers and assisting them through the process of brokering an agreement. Part of USAID's global investment will be used to incentivize additional USAID bilateral investment in key countries.
- USAID is providing \$1 million for the Carbon Reporting Initiative to develop a tool for calculating the climate impacts of USAID-supported agriculture, forestry and other land uses projects worldwide. USAID's forestry-related programs in 119 countries help to mitigate climate change by reducing greenhouse gas emissions from deforestation and forest degradation, or increasing carbon sequestration. The carbon calculator tool will help to translate these impacts into reportable, quantifiable measures of carbon benefits.

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